

**HUNTERS POINT NAVAL SHIPYARD
BASE REALIGNMENT AND CLOSURE CLEANUP TEAM
MEETING NOTES
March 14, 2019**

These notes summarize the Navy Base Realignment and Closure (BRAC) Cleanup Team (BCT) meeting for Hunters Point Naval Shipyard (HPNS) in San Francisco, California. The meeting was held on March 14, 2019 at Jacobs office in San Francisco, California.

I. Introductions and Agenda Review

Mr. Derek Robinson (Navy) conducted introductions and reviewed the action items from the February 7, 2019 BCT meeting.

II. Navy Business/Action Items (Derek Robinson, Navy)

Mr. Derek Robinson (Navy) noted the five action items from the February meeting remain pending. Mr. Paul Stoick (Navy) noted that the Navy is currently contracting for the basewide stormwater management project. Additionally, information on the soil sorting system will be provided in the Parcel G radiological rework work plan addendum, so that action item will be completed at that time.

The Navy is presenting information on Installation Restoration (IR)-26 during today's BCT meeting, so that action item will also be closed.

III. Document Tracking/Upcoming Fieldwork (Paul Stoick, Navy)

Mr. Paul Stoick (Navy) noted that the schedule for the Final Five-Year Review will be pushed out. The Navy is still waiting on comments from the agencies on the Parcel E Phase II work plan. The Parcel F Record of Decision dates will also be delayed.

The excavations planned for the petroleum program has been pushed out a month for all active parcels. Phase II of the of the Parcel E-2 remedial action, there remains some wells to be installed and soil to be moved offsite. The Parcel E-2 Phase III work will begin mobilizing in April. In addition, the installation of the new wells under the basewide groundwater monitoring program commenced in March.

IV. IR-26 Mercury Treatment (Liz Roddy, Navy)

Ms. Liz Roddy (Navy) gave an update on the IR-26 in-situ stabilization (ISS) activities on Parcel B-2. Past remediation efforts included excavation of soil where concentrations of chemicals of concern exceeded remediation goals, installation of a durable cover, installation of a revetment along the shoreline, and implementation of institutional controls (ICs). The goal of the ISS groundwater treatment was to reduce dissolved mercury concentration in groundwater to prevent surface water concentrations above 0.6 ug/L in the SF Bay.

During field activities there were several areas of refusal, but the Navy was able to deliver 30,200 pounds of MetaFix into the subsurface. The Navy contractor advanced 43 injection locations and

met refusal at 9 of those locations. Injection depths ranged from 6 to 23 feet below ground surface. The targeted radius of influence was 8 feet and indications that the radius of influence was met was measured in four monitoring wells. The Navy collected six soil samples from the treatment zone to assess leachability of mercury from site soil and to observe the presence/absence of mercury sulfides formation. Tests showed that mercury concentrations were less than 0.06 µg/L in leachate and provided evidence of mercury stabilization. Cinnabar and mercury sulfides were detected on the surface of soil particles.

Groundwater monitoring wells results do not indicate a significant decrease in the concentrations of dissolved mercury in groundwater. Potential reasons the treatment were unsuccessful include subsurface obstacles during injection, subsurface heterogeneity, limited injection depths, and MetaFix being confined near injection points. Additionally, tidal influence and oxidizing conditions at the site were not ideal for cinnabar formation. The Navy expects that groundwater will still be treated as it encounters the MetaFix but additional injections will not help to lower concentrations in groundwater.

The Navy has concluded that complex/heterogenous subsurface conditions resulted in uneven distribution of reagent and the Navy is recommending post-treatment long-term monitoring to evaluate long term treatment. The remedial action objective (RAO) for this site was to prevent or minimize migration of mercury in the A-aquifer groundwater to the surface waters of San Francisco Bay that would result in concentrations of mercury above 0.6 µg/L in the surface water of San Francisco Bay. The RAO is intended to protect the beneficial uses of the bay, including ecological receptors.

The Navy legal team will contact the BCT legal departments regarding the wording used in the IR-26 RAO.

V. Parcel E (Paul Stoick, Navy)

Mr. Paul Stoick (Navy) noted that due to the high cost (>\$100M) and extended fieldwork schedule, Parcel E will be completed in four phases. The radiological component of the current phase is radiologically scanning of excavated soil prior to offsite disposal. The soil scanning process for offsite disposal at HPNS has not changed. Since the deadline for comments on the document has already passed, the Navy proposes moving forward with the document and the Navy will take any outstanding comments into consideration prior to the start of fieldwork.

VI. Miscellaneous Topics/Updates (Paul Stoick, Navy)

Ms. Tina Low (Water Board) noted that she is working part-time and projects in Parcel B-1, B-2 and E-2 will be assigned to Mr. Jeff White.

Ms. Amy Brownell (City of San Francisco) pointed out that they strongly agree with the California Department of Toxic Substances (DTSC) comment regarding the length of the revetment wall in Parcel E.

Ms. Robinson (Navy) noted that the Navy is working on the Five-year Review response to comments. The Navy is planning to finalize the Five-Year Review and for some of the outstanding comments, the Navy will document how certain items are achieved over the next 12

months. EPA will resend the Navy their comments regarding situations where laboratory reporting limits are higher than the remediation goals. Ms. Huang (EPA) also noted that they are going to request additional information in the areas where the Navy is suggesting shutting down a soil-vapor extraction system. The Navy may need to address this remediation in a separate report after additional evaluation. The Navy noted that many of these changes have already been made in the red-line strikeout version of the text.

Mr. Robinson (Navy) noted that basewide groundwater plume maps are being completed and will be shared soon. The agencies would like to see an annual basewide groundwater report for HPNS. The Navy is re-evaluating how they conduct the basewide groundwater program at HPNS.

VII. Action Items/Future Meetings (Derek Robinson, Navy)

- The Navy will prepare an IR-26 fieldwork completion memorandum to the BCT.
- The Navy legal department will contact the BCT legal departments to discuss the IR-26 remedial action objects.
- EPA will resend their comments on the Five-Year Review concerning chemical analytes where the laboratory reporting limit is higher than the remediation goals.
- The Navy will send the BCT the PCB congeners calculations that have been done for Parcel F.

Next Meetings:

- The next BCT is scheduled for April 4, 2019 via teleconference.

Meeting participants:

Jeff Austin, Geosyntec*

Nina Bacey, DTSC

Liz Basinet, Noreas

Doug Bielskis, ERRG*

Karla Brasaemle, TechLaw*

Amy Brownell, City of San Francisco

John Chestnut, EPA*

Jamie Egan, APTIM

Leslie Howard, Navy*

Judy Huang, EPA

Leo Larson, Navy*

Tina Low, Water Board

Sean-Ryan McCray, Navy*

Sharon Ohannessian, Navy*

Chris Ota, Navy*

Shane Reese, CDPH

Liz Roddy, Navy*

Derek Robinson, Navy

Katie Robinson, Wood*

Yolanda Sanchez, EPA

Dustyne Sutherland, Langan

Paul Stoick, Navy

Karen Ueno, EPA*

* Indicates attendee participated via telephone